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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,450	11/06/2001	Koichi Ito	215208US2PCT	4694
22850	7590	11/03/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			MATTIS, JASON E	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/926,450	Applicant(s) ITO ET AL.	
	Examiner Jason E. Mattis	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-42 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 23, 24, 29 and 34-42 is/are rejected.
 7) ☒ Claim(s) 25-28 and 30-33 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 8/17/05. Due to the amendment, the previous objection to the title of the invention has been withdrawn. Claims 1-22 have been canceled by the amendment and new claims 23-42 have been added. Claims 23-43 are currently pending in the application.

Claim Objections

2. Claims 25 and 37 are objected to because of the following informalities:

With respect to claim 25, line 3 of this claim uses the term "the moving data"; however, there is no prior mention of "moving data" in claim 25 or in claim 23, which claims 25 depends on. It is recommended that "the moving data" be changed to "the video data" to be consistent with the language of claim 1.

With respect to claim 37, lines 1-2 of this claim appear to contain a typo using the term "other communication device". It is recommended that "other communication device" be changed to "another communication device". Line 5 of claim 37 contains the term "the received data"; however there is no prior mention of "received data" in claim 37. It is recommended that "the received data" be changed to "received data".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23, 29, and 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mangold et al. (U.S. Pat. 5926232) in view of Jeong (U.S. Pat. 6393060).

With respect to claim 23, Mangold et al. discloses a communication device for receiving encoded data via a transmission channel **(See column 3 lines 6-15 and Figure 1 of Mangold et al. for reference to a data transmission system for transmitting bi-directional transmission signals, such as video signals, over a telecommunications network 1 between two terminals, with one on the reception side and one on the transmission side)**. Mangold et al. also discloses that the encoded data comprises a first data and a second data, wherein the first data is generated from one frame of video data and the second data is generated from a difference between frames of the video data **(See column 1 lines 17-31 of Mangold et al. for reference to using MPEG4, which as disclosed by the Applicant's background uses an initial I frame, which is a first data generated from one frame of video data, and a plurality of P frames, which include second data generated from a difference between frames of the video data)**. Mangold et al. further

discloses a transmission quality monitoring means for monitoring the reception quality of received data via the transmission channel (**See column 3 lines 16-62 and Figure 1 of Mangold et al. for reference to channel decoder 7 generating signals QP1 and Qp2, which are quality parameters that describe the quality of the transmitted signals**). Although Mangold et al. does disclose that a reception control means takes a quality control action when the transmission quality monitoring means has detected that the quality of the transmission channel has deteriorated to a preset first state and thereafter has been restored to a preset second state (**See column 3 line 53 to column 4 line 12 and Figures 1-2 of Mangold et al. for reference to processor 14 determining when the signal quality has moved from one threshold to another and back again and for reference to changing the bit redundancy rate based on the current signal quality**), Mangold et al. does not specifically disclose notifying of a request for transmission of the first data in place of the second data.

With respect to claim 29, Mangold et al. discloses a communication device for receiving encoded data via a transmission channel (**See column 3 lines 6-15 and Figure 1 of Mangold et al. for reference to a data transmission system for transmitting bi-directional transmission signals, such as video signals, over a telecommunications network 1 between two terminals, with one on the reception side and one on the transmission side**). Mangold et al. also discloses that the encoded data comprises a first data and a second data, wherein the first data is generated from one frame of video data and the second data is generated from a difference between frames of the video data (**See column 1 lines 17-31 of Mangold et**

al. for reference to using MPEG4, which as disclosed by the Applicant's background uses an initial I frame, which is a first data generated from one frame of video data, and a plurality of P frames, which include second data generated from a difference between frames of the video data). Mangold et al. further discloses a transmission quality monitoring means for monitoring the reception quality of received data transmitted via the transmission channel **(See column 3 lines 16-62 and Figure 1 of Mangold et al. for reference to channel decoder 7 generating signals QP1 and Qp2, which are quality parameters that describe the quality of the transmitted signals).** Although Mangold et al. does disclose that a reception control means takes a quality control action when the transmission quality monitoring means has detected that the quality of the transmission channel has deteriorated to a preset first state and thereafter has been restored to a preset second state **(See column 3 line 53 to column 4 line 12 and Figures 1-2 of Mangold et al. for reference to processor 14 determining when the signal quality has moved from one threshold to another and back again and for reference to changing the bit redundancy rate based on the current signal quality),** Mangold et al. does not specifically disclose causing the communication device on the transmission side to transmit the first data in place of the second data by notifying the communication device on the transmission side of the monitored information.

With respect to claim 34, Mangold et al. discloses a communication device for transmitting encoded data via a transmission channel **(See column 3 lines 6-15 and Figure 1 of Mangold et al. for reference to a data transmission system for**

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transmitting bi-directional transmission signals, such as video signals, over a telecommunications network 1 between two terminals, with one on the reception side and one on the transmission side). Mangold et al. also discloses that the encoded data comprises a first data and a second data, wherein the first data is generated from one frame of video data and the second data is generated from a difference between frames of the video data **(See column 1 lines 17-31 of Mangold et al. for reference to using MPEG4, which as disclosed by the Applicant's background uses an initial I frame, which is a first data generated from one frame of video data, and a plurality of P frames, which include second data generated from a difference between frames of the video data).** Although Mangold et al. does disclose that a transmission control means takes a quality control action when the transmission quality monitoring means has detected that the quality of the transmission channel has deteriorated to a preset first state and thereafter has been restored to a preset second state **(See column 3 line 53 to column 4 line 12 and Figures 1-2 of Mangold et al. for reference to processor 14 determining when the signal quality has moved from one threshold to another and back again and for reference to changing the bit redundancy rate based on the current signal quality),** Mangold et al. does not specifically disclose causing the communication device on the transmission side to transmit the first data in place of the second data.

With respect to claim 35, Mangold et al. does not specifically disclose a means for receiving a request for the transmission of the first data and a means for transmitting the first data in place of the second data in response to the request.

With respect to claim 36, Mangold et al. discloses a means for receiving the monitored information about the quality of the transmission channel from the communication device on the reception side **(See column 3 lines 43-52 and Figure 1 of Mangold et al. for reference to quality parameters QP1 and QP2 being transmitted via a multiplexer 12 from the device on the reception side to the device on the transmission side)**. Mangold et al. also discloses a means for detecting the deterioration of the reception quality to the first state and the subsequent restoration of the reception quality to the second state **(See column 3 line 53 to column 4 line 12 and Figures 1-2 of Mangold et al. for reference to processor 14 determining when the signal quality has moved from one threshold to another and back again)**. Mangold et al. does not specifically disclose a means for transmitting the first data in place of the second data.

With respect tot claim 37, Mangold et al. discloses a communication device for communicating with another communication device bi-directionally **(See column 3 lines 6-15 and Figure 1 of Mangold et al. for reference to a data transmission system for transmitting bi-directional transmission signals, such as video signals, over a telecommunications network 1 between two terminals, with one on the reception side and one on the transmission side)**. Mangold et al. also discloses that the encoded data comprises a first data and a second data, wherein the first data is generated from one frame of video data and the second data is generated from a difference between frames of the video data **(See column 1 lines 17-31 of Mangold et al. for reference to using MPEG4, which as disclosed by the Applicant's**

background uses an initial I frame, which is a first data generated from one frame of video data, and a plurality of P frames, which include second data generated from a difference between frames of the video data). Mangold et al. further discloses a means for estimating the reception quality of received data from the other communication device **(See column 3 lines 16-62 and Figure 1 of Mangold et al. for reference to channel decoder 7 generating signals QP1 and Qp2, which are quality parameters that describe the quality of the transmitted signals).** Although Mangold et al. does disclose a means for detecting and taking an action when the quality of the received data has deteriorated to a preset first state and thereafter has been restored to a preset second state **(See column 3 line 53 to column 4 line 12 and Figures 1-2 of Mangold et al. for reference to processor 14 determining when the signal quality has moved from one threshold to another and back again and for reference to changing the bit redundancy rate based on the current signal quality),** Mangold et al. does not specifically disclose a means for transmitting the first data to the other device in place of the second data.

With respect to claim 38, Mangold et al. does not disclose a means for transmitting a request for the transmission of the first data to the other communication device in place of the second data.

With respect to claims 23, 29, and 34-38, Jeong, in the field of communications, discloses transmission of a first data in place of the second data in response to signal quality degradation **(See column 2 lines 38-49 for reference to a receiver requesting an I frame, which is a first data, in place of a P frame, which is**

a second data, in response to transmission packet loss as caused by a transmission signal degradation). Transmitting a first data in place of the second data in response to signal quality degradation has the advantage of allowing the receiver to more quickly recover from a period of signal degradation by receiving an I frame, which contains the complete data, instead of a P frame, which contains data that relies on the successful reception of previous data frames.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Jeong, to combine transmitting a first data in place of the second data, as suggested by Jeong, with the system of Mangold et al., with the motivation being to allow the receiver to more quickly recover from a period of signal degradation by receiving an I frame, which contains the complete data, instead of a P frame, which contains data that relies on the successful reception of previous data frames.

With respect to claims 39-42, Mangold et al. discloses that the first data is intra-coded data of the MPEG standard and the second data is inter-coded data of the MPEG standard **(See column 1 lines 17-31 of Mangold et al. for reference to using MPEG4, which as disclosed by the Applicant's background uses an initial I frame, which is intra-coded data of the MPEG standard, and a plurality of P frames, which are inter-coded data of the MPEG standard).**

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mangold et al. in view of Jeong as applied to claims 1-4, 7, 13, and 18-22 above, and further in view of Lee et al. (U.S. Pat. 5774479).

With respect to claim 24, the combination of Mangold et al. and Jeong does not disclose that the reception control means transmits the request for the transmission repeatedly at specific intervals until it has acknowledged the reception of the first data.

With respect to claim 24, Lee et al., in the field of communications, discloses transmitting a request at specific intervals until receipt of the request has been acknowledged (**See column 3 line 35 to column 5 line 6 and Figures 3-4 of Lee et al. for reference to sending a request, then waiting a specific interval to see if the request is acknowledged, and if the request is not acknowledged, sending the request again, and for reference to repeating this process until the request has been acknowledged**). Transmitting a request at specific intervals until receipt of the request has been acknowledged has the advantage of providing a way for a transmitter of a request to make sure that an important request is received and processed by a receiver.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Lee et al., to combine transmitting a request at specific intervals until receipt of the request has been acknowledged, as suggested by Lee et al., with the system of Mangold et al. and Jeong, with the motivation being to provide a way for a transmitter of a request to make sure that an important request is received and processed by a receiver.

Allowable Subject Matter

6. Claims 25-28 and 30-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims 25 and 30 would be allowable since the prior art of record fails to either disclose or render obvious the claimed "recording control means for deleting the encoded data or the video data received between the deterioration to the first state and the reception of the first data".

Claims 26-28 would be allowable since they depend on claim 25.

Claims 31-33 would be allowable since they depend on claim 30.

Response to Arguments

8. Applicant's arguments filed 8/17/05 have been fully considered but they are not persuasive.

In response to the Applicant's argument that:

“Mangold et al. and the claimed invention are different in what they control... In view of this difference, Applicants respectfully submitted Mangold et al. cannot achieve an advantage of the claimed invention... the structure and functionality of the claimed invention is similarly distinguishing over Jeong, which in now way cures the above-discussed deficiency in Mangold et al.” (See pages 10-11 of Applicant’s Remarks/Arguments section)

the Examiner respectfully disagrees. First, it is noted in the rejections above that Mangold et al. does not disclose the claimed transmission of the first data in place of the second data after it has been determined that the reception quality has restored to a second state after deteriorating to a first state. Mangold et al. is used as a teaching of taking an action to combat deterioration once the reception quality has restored to a second state after deteriorating to a first state. It is the Jeong patent that is used as a teaching of transmission of the first data in place of the second data after in response to a packet loss, which is a type of reception quality deterioration. Therefore, the rejections above rely on a combination of the teaching of Mangold et al. with the teaching of Jeong to render obvious the claim limitation. Since both references deal in the area of taking an action to combat the deterioration of reception quality, and since, as cited in the rejections above, there is motivation to combine the teachings of Jeong with the teachings of Mangold et al., the above rejections under 35 U.S.C. 103(a) are proper.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

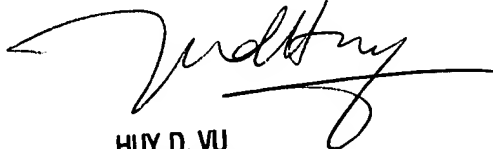
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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